

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 12-Jan-2017

Print date: 12-Jan-2017

Version: 1.3

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## Antifreeze -60 °C

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Trade name/designation:

Antifreeze -60 °C

Other means of identification:

De-Icer, Lock De-Icer

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Use of the product:

Anti-freeze and de-icing products.

#### 1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

**CHEMICA GmbH & Co. KG**

Am Boksberg 6

31157 Sarstedt

GERMANY

Telephone: +49 (0) 50 66 - 70 04 0

Telefax: +49 (0) 50 66 - 69 11 10

E-mail: info@chemica.de

Website: www.chemica.de

E-mail (competent person): info@chemica.de

#### 1.4 Emergency phone number

24h: +49 (0)172 547 000 3, +49 (0)172 547 000 5

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation ( <i>Eye Irrit. 2</i> )	H319: Causes serious eye irritation.	Calculation
Flammable liquids ( <i>Flam. Liq. 3</i> )	H226: Flammable liquid and vapour.	Calculation
STOT-repeated exposure ( <i>STOT RE 2</i> )	H373: May cause damage to organs through prolonged or repeated exposure.	Calculation

#### 2.2 Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms:



**GHS02**  
Flame



**GHS07**  
Exclamation mark.



**GHS08**  
Health hazard

Signal word: Warning

Hazard components for labelling:

Ethylene glycol

#### Hazard statements for physical hazards

H226 Flammable liquid and vapour.

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### Hazard statements for health hazards

H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

### Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

### Precautionary statements Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.

### Precautionary statements Response

P314	Get medical advice/attention if you feel unwell.
------	--

### Precautionary statements Disposal

P501	Dispose of contents/container to safe conditions.
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## 2.3 Other hazards

### Adverse human health effects and symptoms:

Repeated exposure may cause skin dryness or cracking.

Vapours may cause drowsiness and dizziness.

## SECTION 3: Composition / information on ingredients

### 3.2 Mixtures

#### Description:

Ethanol, Ethylene glycol, Additives in aqueous solution

#### Hazardous ingredients / Hazardous impurities / Stabilisers:

Product identifiers	Substance name Classification according to Regulation (EC) No. 1272/2008 [CLP]	Content
CAS No.: 64-17-5 EC No.: 200-578-6 REACH No.: 01-2119457610-43	<b>Ethanol</b> Flam. Liq. 2, Eye Irrit. 2 <b>Danger</b> H225-H319	40 - 60 Wt %
CAS No.: 107-21-1 EC No.: 203-473-3 REACH No.: 01-2119456816-28	<b>Ethylene glycol</b> Acute Tox. 4, STOT RE 2 <b>Warning</b> H302-H373	10 - 30 Wt %

Full text of H- and EUH-phrases: see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air. Get medical advice/attention if you feel unwell.

#### In case of skin contact:

Remove contaminated, saturated clothing immediately. Wash immediately with: Water and soap. In case of skin irritation, consult a physician.

#### After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

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### After ingestion:

Rinse mouth. Let water be drunken in little sips (dilution effect). Call a physician immediately.

### 4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation. May cause damage to organs through prolonged or repeated exposure. Drowsiness, Dizziness.

### 4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media:

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), Sand, Extinguishing blanket

### 5.2 Special hazards arising from the substance or mixture

Flammable liquid and vapour. Vapours can form explosive mixtures with air.

#### Hazardous combustion products:

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

### 5.3 Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4 Additional information

Heating causes rise in pressure with risk of bursting. Move undamaged containers from immediate hazard area if it can be done safely. Beware of reignition. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.1.1 For non-emergency personnel

##### Personal precautions:

Remove persons to safety. Eliminate all ignition sources if safe to do so. Do not breathe gas/vapour/aerosol.

##### Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

#### 6.1.2 For emergency responders

##### Personal protection equipment:

Personal protection equipment: see section 8

### 6.2 Environmental precautions

Do not allow to enter into surface water or drains.  
Do not allow to enter into soil/subsoil.

### 6.3 Methods and material for containment and cleaning up

#### For containment:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Disposal: see section 13.

#### For cleaning up:

Clean floors and contaminated objects with: Water

### 6.4 Reference to other sections

Safe handling: see section 7.  
Personal protection equipment: see section 8.  
Disposal: see section 13.

### 6.5 Additional information

Use appropriate container to avoid environmental contamination.

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### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

##### Protective measures

##### Advices on safe handling:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use explosion-proof machinery, apparatus, ventilation facilities, tools etc. Take precautionary measures against static discharges. Do not breathe gas/vapour/aerosol. Wear personal protection equipment (refer to section 8).

##### Fire prevent measures:

Highly flammable: Keep away from sources of ignition - No smoking.

##### Environmental precautions:

Discharge into the environment must be avoided.

##### Advices on general occupational hygiene

Avoid contact with eyes and skin. Wash hands before breaks and after work. Take off contaminated clothing and wash it before reuse.

#### 7.2 Conditions for safe storage, including any incompatibilities

##### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

##### Requirements for storage rooms and vessels:

Material, solvent-resistant. Keep/Store only in original container.

##### Hints on storage assembly:

Keep away from combustible material. Keep away from food, drink and animal feedingstuffs.

##### Storage class: 3 - Flammable liquids

##### Further information on storage conditions:

Protect from sunlight. Store in a well-ventilated place.

#### 7.3 Specific end use(s)

##### Recommendation:

Anti-freeze and de-icing products.

Observe instructions for use.

### SECTION 8: Exposure controls / Personal protection

#### 8.1 Control parameters

##### 8.1.1 Occupational exposure limit values

Limit value type (country)	Substance name	① Long-term occupational exposure limit value ② Short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
WEL (GB)	Ethanol CAS No.: 64-17-5	① 1,000 ppm (1,920 mg/m <sup>3</sup> )
IOELV (EU)	Ethylene glycol CAS No.: 107-21-1	① 20 ppm (52 mg/m <sup>3</sup> ) ② 40 ppm (104 mg/m <sup>3</sup> )
WEL (GB)	Ethylene glycol CAS No.: 107-21-1	① 10 mg/m <sup>3</sup>
WEL (GB)	Ethylene glycol CAS No.: 107-21-1	① 20 ppm (52 mg/m <sup>3</sup> ) ② 40 ppm (104 mg/m <sup>3</sup> ) ⑤ vapour

##### 8.1.2 Biological limit values

No data available.

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### 8.1.3 DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Ethanol CAS No.: 64-17-5	1,900 mg/m <sup>3</sup>	① DNEL worker ② DNEL acute inhalative (local)
Ethanol CAS No.: 64-17-5	950 mg/m <sup>3</sup>	① DNEL worker ② DNEL acute inhalative (local)
Ethanol CAS No.: 64-17-5	600 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
Ethanol CAS No.: 64-17-5	106 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
Ethanol CAS No.: 64-17-5	1,161 mg/kg bw/day	① DNEL worker ② DNEL long-term dermal (systemic)
Ethanol CAS No.: 64-17-5	412 mg/kg bw/day	① DNEL worker ② DNEL long-term dermal (systemic)
Ethanol CAS No.: 64-17-5	31 mg/kg bw/day	① DNEL worker ② DNEL long-term oral (repeated)

Substance name	PNEC value	① PNEC type
Ethanol CAS No.: 64-17-5	0.96 mg/l	① PNEC aquatic, freshwater
Ethanol CAS No.: 64-17-5	0.79 mg/l	① PNEC aquatic, marine water
Ethanol CAS No.: 64-17-5	3.6 mg/kg	① PNEC sediment, freshwater
Ethanol CAS No.: 64-17-5	287.7 mg/kg	① PNEC sediment, marine water

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. Technical ventilation of workplace

#### 8.2.2 Personal protection equipment



##### Eye/face protection:

Eye glasses with side protection (EN 166).

##### Skin protection:

Recommendation / Filling and transfer: Tested protective gloves must be worn (EN 374).

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material:  $\geq 0,4$  mm

Breakthrough time (maximum wearing time):  $\geq 480$  min

The statement is derived from the properties of the main components. The suitability of the glove material for the handling of the product has not been verified. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. Recommendation: Draw up and observe skin protection programme.

##### Respiratory protection:

Usually no personal respiratory protection necessary. If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Filtering device (full mask or mouthpiece) with filter: A

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### Other protection measures:

Wear anti-static footwear and clothing

### 8.2.3 Environmental exposure controls

No data available.

### 8.3 Additional information

No data available.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state: liquid

Colour: blue

Odour: like Alcohol

#### Safety relevant basic data

Parameter		at	Method	Remark
pH	≈ 7	20 °C		
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	≈ 77 - 79 °C			(Ethanol)
Decomposition temperature	<i>not determined</i>			
Flash point	> 23 - < 55 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature	> 360 °C			(Ethanol)
Upper/lower flammability or explosive limits	3.5 - 15 Vol-%			(Ethanol)
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.9 - 1 g/ml	20 °C		
Bulk density	<i>not applicable</i>			
Water solubility	completely miscible			
Partition coefficient: n-octanol/water	-0.32			(Ethanol)
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

### 9.2 Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

Flammable liquid and vapour.

### 10.2 Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

Vapours can form explosive mixtures with air. Violent reaction with: Oxidising agent, strong

### 10.4 Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Keep away from sources of ignition - No smoking.

### 10.5 Incompatible materials

Oxidising agent

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>).

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### Further information

No data available.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute oral toxicity:

Based on available data, the classification criteria are not met.

#### Acute dermal toxicity:

Based on available data, the classification criteria are not met.

#### Acute inhalation toxicity:

Based on available data, the classification criteria are not met.

#### Skin corrosion/irritation:

Based on available data, the classification criteria are not met.

Slightly irritant but not relevant for classification. Repeated exposure may cause skin dryness or cracking.

#### Eye damage/irritation:

Causes serious eye irritation.

#### Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met.

#### Germ cell mutagenicity:

Based on available data, the classification criteria are not met.

#### Carcinogenicity:

Based on available data, the classification criteria are not met.

#### Reproductive toxicity:

Based on available data, the classification criteria are not met.

#### STOT-single exposure:

Based on available data, the classification criteria are not met.

Vapours may cause drowsiness and dizziness.

Aerosol or mist formation: May cause respiratory irritation.

#### STOT-repeated exposure:

May cause damage to organs through prolonged or repeated exposure. Target organ(s): kidneys;

Exposure route(s): Inhalation, Skin contact

#### Aspiration hazard:

Based on available data, the classification criteria are not met.

#### Additional information:

No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Aquatic toxicity:

The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No 1272/2008 [CLP], Annex I. On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment is unlikely.

### 12.2 Persistence and degradability

#### Biodegradation:

The single components are biodegradable. Readily biodegradable (according to OECD criteria).

### 12.3 Bioaccumulative potential

#### Partition coefficient: n-octanol/water:

-0.32; Remark: (Ethanol)

#### Accumulation / Evaluation:

No indication of bioaccumulation potential.

### 12.4 Mobility in soil

No data available.

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### 12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6 Other adverse effects

No data available.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Waste treatment options

##### Appropriate disposal / Product:

For recycling, contact manufacturer. Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

##### Appropriate disposal / Package:

Completely emptied packages can be recycled.





##### Other disposal recommendations:

The allocation of waste code numbers / waste names must be carried out in accordance with the European Waste Catalogue (EWC). Collect in closed and suitable containers for disposal. Do not allow to enter into surface water or drains.

### 13.2 Additional information

Waste for disposal is to be classified and labelled.

## SECTION 14: Transport information

Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
<b>14.1 UN-No.</b>			
1170	1170	1170	1170
<b>14.2 UN proper shipping name</b>			
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
<b>14.3 Transport hazard class(es)</b>			
 3	 3	 3	 3
<b>14.4 Packing group</b>			
III	III	III	III
<b>14.5 Environmental hazards</b>			
No	No	No	No



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Land transport (ADR / RID)	Inland waterway craft (ADN)	Sea transport (IMDG)	Air transport (ICAO- TI / IATA-DGR)
<b>14.6 Special precautions for user</b>			
<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> 5 L <b>Hazard identification number (KemlerNo.):</b> 30 <b>Classification code:</b> F1 <b>Tunnel restriction code:</b> D/E <b>Remark:</b>	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Classification code:</b> F1 <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>EmS-No.:</b> F-E; S-D <b>Remark:</b> -	<b>Special provisions:</b> not determined <b>Limited Quantity (LQ):</b> not determined <b>Remark:</b> -

### 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not determined

#### Additional information:

No data available.

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1 EU legislation

##### Other EU regulations:

Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### 15.1.2 National regulations

No data available.

### 15.2 Chemical Safety Assessment

No data available.

### 15.3 Additional information

No data available.

## SECTION 16: Other information

### 16.1 Indication of changes

Changes with version 1.1:

Section 1: Other means of identification

Section 14: Hazard identification number (KemlerNo.)

Changes with version 1.2:

Section 1: Trade name/designation (HU)

Section 3: Content of Ethylene glycol

General revision

Changes with version 1.3:

Section 3: Hazard statements of Ethylene glycol

Section 11: STOT-repeated exposure, Target organ(s)

General revision

### 16.2 Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

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### 16.3 Key literature references and sources for data

European Chemicals Agency (ECHA): <http://www.echa.europa.eu>

ECHA, C&L Inventory: <http://echa.europa.eu/information-on-chemicals/cl-inventory-database>

ECHA, Registered substances: <http://echa.europa.eu/information-on-chemicals/registered-substances>

GESTIS (Gefahrstoffinformationssystem der DGUV): <http://www.dguv.de/ifa/GESTIS/index.jsp>

Hörath Gefährliche Stoffe und Gemische, 8. Auflage, Dr. Angela Schulz

### 16.4 Classification for mixtures and used evaluation method according to regulation (EC) No. 1272/2008 [CLP]

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Serious eye damage/eye irritation ( <i>Eye Irrit. 2</i> )	H319: Causes serious eye irritation.	Calculation
Flammable liquids ( <i>Flam. Liq. 3</i> )	H226: Flammable liquid and vapour.	Calculation
STOT-repeated exposure ( <i>STOT RE 2</i> )	H373: May cause damage to organs through prolonged or repeated exposure.	Calculation

### 16.5 Relevant H- and EUH-phrases

Hazard statements	
H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H319	Causes serious eye irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

### 16.6 Training advice

No data available.

### 16.6 Additional information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.